

Application No. 10/076,071
Amendment dated September 7, 2005
Reply to Office Action mailed April 8, 2005

Amendments to the Specification:

Please replace the paragraph appearing at page 15, lines 9-20, of the specification with the following paragraph:

In P₁, Xaa₁ is most preferably Asp, Xaa₂ is most preferably Ala, and Xaa₃ is most preferably Lys (see above). Thus, the preferred sequences of P₁ are Asp Ala His and Asp Ala His Lys [SEQ ID NO:1]. Most preferably the sequence of P₁ is Asp Ala His Lys [SEQ ID NO:1]. Asp Ala His is the minimum sequence of the N-terminal metal-binding site of human serum albumin necessary for the high-affinity binding of Cu(II) and Ni(II), and Lys has been reported to contribute to the binding of these metal ions to this site. Also, Asp Ala His Lys [SEQ ID NO:1] has been found by mass spectrometry to bind Fe(II) and to pass through a model of the blood brain barrier. Other preferred sequences for P₁ include Thr Leu His (the N-terminal sequence of human α -fetoprotein), Arg Thr His (the N-terminal sequence of human sperm protamin HP2) and HMS HMS His (a synthetic peptide reported to form extremely stable complexes with copper; see Mlynarz et al., *Speciation 98: Abstracts*, <http://www.jate.u-szeged.hu/spec98/abstr/mlynar.html>, 4/21/98).